

It may therefore, perhaps, be worthy some Physicians enquiry, whether there may not be something mixt with the Urine in which the Gravel or Stone lies, which may again make it dissolve it, the first of which seems by it's regular Figures to have been sometimes *Crystalliz'd* out of it. For whether this *Crystallization* be made in the manner as *Alum*, *Peter*, &c. are *crystallized* out of a cooling liquor, in which, by boyling they have been dissolv'd; or whether it be made in the manner of *Tartarum Vitriolatum*, that is, by the *Coalition* of an *acid* and a *sulphureous* substance, it seems not impossible, but that the liquor it lies in, may be again made a *dissolvent* of it. But leaving these inquiries to Physicians or Chymists, to whom it does more properly belong, I shall proceed.

Observ. XIII. Of the small Diamants, or Sparks in Flints.

Changing to break a Flint stone in pieces, I found within it a certain cavity all crufted over with a very pretty candied substance, some of the parts of which, upon changing the posture of the Stone, in respect of the *Incident* light, exhibited a number of small, but very vivid reflections; and having made use of my *Microscope*, I could perceive the whole surface of that cavity to be all beset with a multitude of little *Crystalline* or *Adamantine* bodies, so curiously shap'd, that it afforded a not unpleasing object.

Having considered those vivid *repercussions* of light, I found them to be made partly from the plain external surface of these regularly figured bodies (which afforded the vivid reflections) and partly to be made from within the somewhat *pellucid* body, that is, from some surface of the body, opposite to that superficies of it which was next the eye.

And because these bodies were so small, that I could not well come to make Experiments and Examinations of them, I provided me several small *stiries* of Crystals or Diamants, found in great quantities in *Cornwall*, and are therefore commonly called *Cornish Diamants*: these being very *pellucid*, and growing in a hollow cavity of a Rock (as I have been several times informed by those that have observ'd them) much after the same manner as these do in the Flint; and having besides their outward surface very regularly shap'd, retaining very near the same Figures with some of those I observ'd in the other, became a convenient help to me for the Examination of the proprieties of those kinds of bodies.

And first for the Reflections; in these I found it very observable, That the brightest reflections of light proceeded from within the *pellucid* body; that is, that the Rays admitted through the *pellucid* substance in their getting out on the opposite side, were by the contiguous and strong reflecting surface of the Air very vividly reflected, so that more Rays were reflected to the eye by this surface, though the Ray in entering and getting out of the Crystal had suffer'd a double refraction, than there were from the outward surface of the Glass where the Ray had suffer'd no refraction at all.

Fig: 1

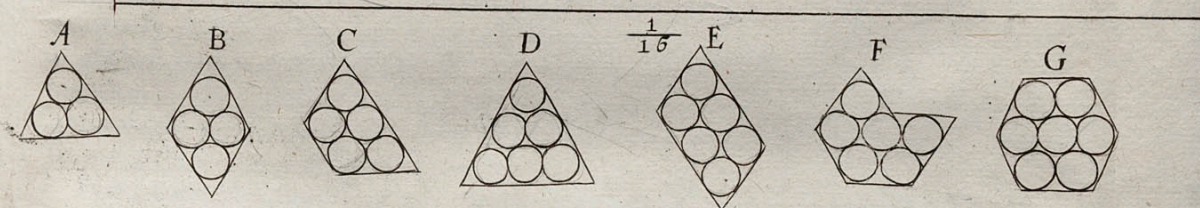
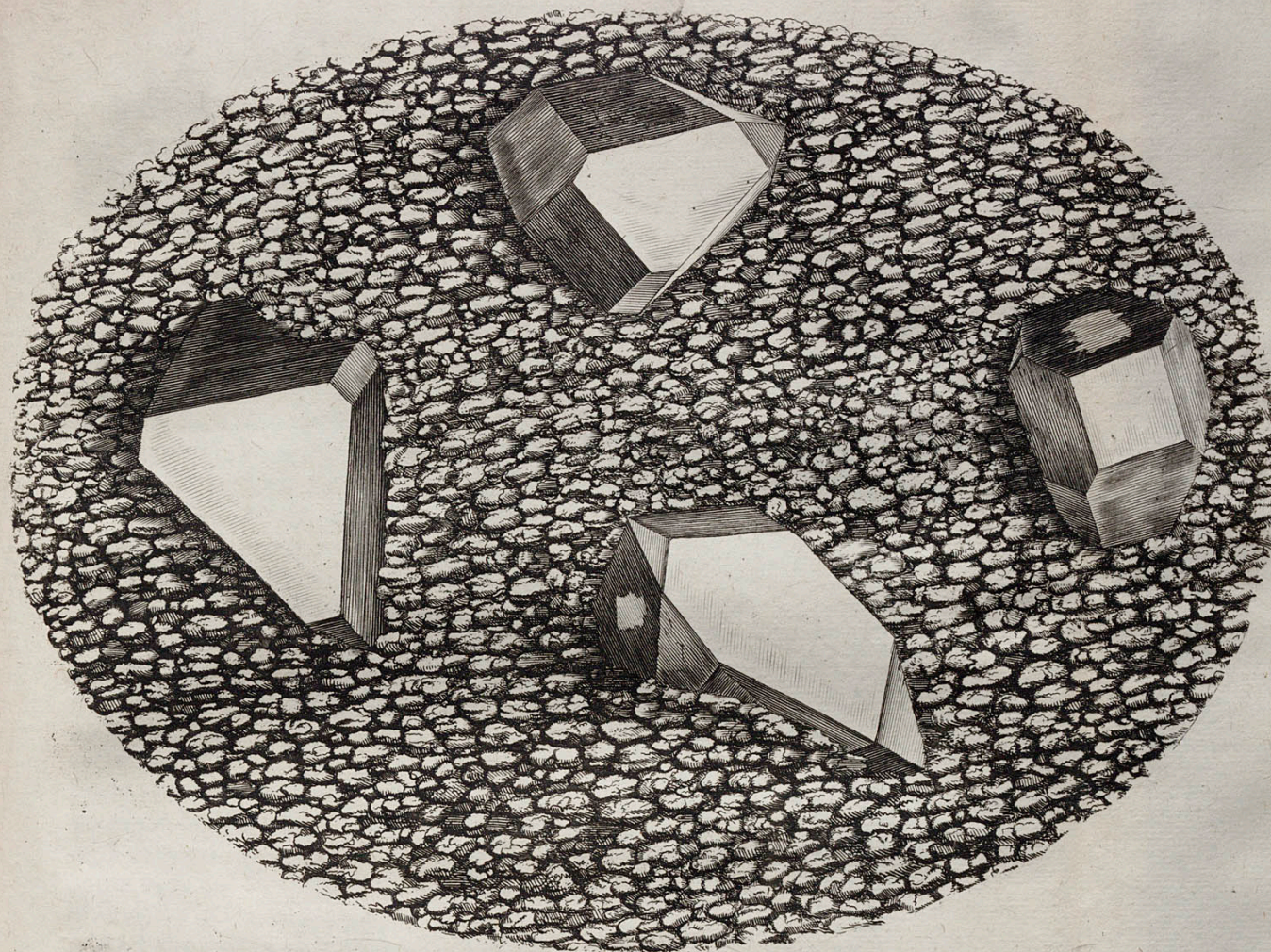


Fig: 2

